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A METHOD AND DEVICE FOR ESTIMATING THE PITCH OF A SPEECH  
SIGNAL, USING A BINARY SIGNAL

CROSS REFERENCES TO RELATED APPLICATIONS

This application for patent claims the benefit of  
priority from, and hereby incorporates by reference the entire  
disclosure of, co-pending U.S. Provisional Application for  
Patent Serial No. 60/197,044, filed April 14, 2000.

Field of the Invention

The invention relates to a method and device for estimating the  
pitch of a speech signal, for example, in telephones.

Background of the Invention

In many speech processing systems it is desirable to know the  
pitch period of the speech. As an example, several speech  
enhancement algorithms are dependent on having a correct  
estimate of the pitch period. One field of application where  
speech processing algorithms are widely used is in mobile  
telephones.

A well known way of estimating the pitch period is to use the  
autocorrelation function, or a similar conformity function, on  
the speech signal. An example of such a method is described in  
the article D.A. Krubsack, R. J. Niederjohn, "An  
Autocorrelation Pitch Detector and Voicing Decision with  
Confidence Measures Developed for Noise-Corrupted Speech", IEEE